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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,690	12/27/2001	Han-Seung Koo	3364p060	7287

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EXAMINER

O'STEEN, DAVID R

ART UNIT PAPER NUMBER

2623

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/032,690	Applicant(s) KOO ET AL.	
	Examiner David R. O'Steen	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12-27-2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice to Applicant

1. Art Units 2611, 2614 and 2617 have changed to 2623. Please make all future correspondence indicate the new designation 2623.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2 and 13-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Ozkan (US 6,031,577).

As regards Claims 1 and 13, Ozkan discloses a system and method for sending and receiving information of digital cable broadcasting (cols. 2 and 3, lines 66-67 and 1-2), comprising; a headend unit (col. 10, lines 20-26) for assigning a packet identifier (PID) from within a range of PIDs predefined by the system to tables carrying data according to inclusion slates of service information (col. 5, lines 35-42), constructing a transport packet (fig. 10.830 and col. 10, lines 61-64), and sending the constructed transport packet using a motion picture experts group (MPEG) communication method (fig. 10.835 and cols. 10, lines 64-67, 1-4 and 15-17); and a receiving unit for receiving the transport packet from the headend unit (fig. 1, and col. 2, lines 49-55), checking the

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PID of the transport packet to determine whether the transport packet includes service information (col. 5, lines 9-16), and determining how to process the transport packet according to determination results of inclusion of service information (col. 5, lines 53-56).

As regards Claims 2 and 14, Ozkan discloses that the headend unit and the receiving unit designate the PID of the transport packet containing service information excepting an aggregate event information table (AEIT) and an aggregate extended text table (AETT) as a first specified number (such as assigning a PID for AEIT and AETT and other PIDs for services, col. 5, lines 40-42), and the PID of the transport packet containing service information including the AEIT and AETT (in Ozkan the EITs and ETTs contain aggregated information and text data for a variety of channels, cols. 7 and 8, lines 66-67 and 1-3 and col. 8, lines 31-44) as a second specified number within a defined range of PIDs excepting the first specified number (col. 5, lines 47-53).

As regards Claim 17, Ozkan discloses that the step (a) comprises: the headend and the receiver designating the PID of the transport packet (such as designating PIDs for various services in an MGT, col. 5, lines 40-42) containing service information excepting an AEIT and an AETT as a first specified number (such as a PID for a CIT or other service), and the PID of the transport packet containing service information including the AEIT and AETT as a second specified number within a defined range of PIDs excepting the first specified number (col. 5, lines 47-53), and assigning a PID excepting the first and second specified numbers to the messages not including service

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information and constructing the transport packet (such as sub-channel PIDs, col. 5, lines 57-62).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4, 6-9 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan (US 6,031,577) in view of Mimura (US 6,557,031). As regards Claims 3 and 15, Ozkan discloses the system and method as claimed in claims 1 and 13, as well as that the headend unit comprises; a service information generator for generating the tables including the service information (col. 10, lines 20-27) and assigning a PID (col. 5, lines 10-17) to construct a transport packet, and outputting the constructed transport packet (fig. 10.830, and col. 10, lines 61-64) but fails to disclose that said service information is in MPEG private section format and sending them on an Internet protocol (IP) datagram and a transport packet generator for receiving the IP datagram from the service information generator. Mimura discloses that said information is in MPEG private section format (see fig. 11.170-172) and sending them on an Internet protocol (IP) datagram (col. 11, lines 57-59) and a transport packet generator (fig. 9.54) for receiving the IP datagram from the service information generator (fig. 11 and cols. 11 and 12, lines 60-67 and 1-5).

At the time of invention it would have been obvious to combine the IP datagram receiver packet generator of Mimura, an analogous art, to the digital cable system of Ozkan because it allows the decentralization of functionality at the headend.

As regards Claim 4, while Ozkan and Mimura jointly disclose the system of Claim 3, as well as the service information generator, Ozkan further discloses that a predefined PID is exclusively used by the system for the transport packet including service information so as to discriminate the transport packet including service information from transport packets including other messages (col. 5, lines 35-42).

As regards Claim 6, while Ozkan and Mimura jointly disclose the system of Claim 3, as well as the service information generator, Ozkan further discloses a master guide table (MGT) that provides a version (see version_number, fig. 2), size, and PID of all other tables from among the tables including service information (col. 5, lines 40-42).

As regards Claims 7 and 16, while Ozkan and Mimura jointly disclose the system and method of Claims 3 and 15 as well as the transport packet generator extracting a payload from the IP datagram received from the service information generator, Ozkan further discloses designating the PID of the transport packet containing service information excepting an AEIT and an AETT as a first specified number (such as assigning a PID for AEIT and AETT and other PIDs for services, col. 5, lines 40-42), and the PID of the transport packet containing service information including the AEIT and AETT as a second specified number within a range of PIDs defined by the headend unit and the receiving unit excepting the first specified number, and assigning the PID of the transport packet as the first specified number for the table containing service

information excepting the AEIT and the AETT (such as assigning a PID for AEIT and AETT and other PIDs for services, col. 5, lines 40-42), and as the second specified number for the table containing service information including the AEIT or AETT (col. 5, lines 45-53)

As regards Claim 8, Mimura discloses that the transport packet generator extracts a payload of the IP datagram received from the service information generator and adds a transport packet header of a predetermined size to construct the final transport packet (fig. 11.1).

As regards Claim 9, while Ozkan and Mimura jointly disclose the system as claimed in Claim 3 as well as the transport packet generator and the service information generator, Ozkan further discloses an MGT that provides the version size (see version_number, fig. 2) and PID of all other tables from among the tables including service information (col. 5, lines 40-42).

Claims 10-12 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan (US 6,031,577) in view of N. N. Y. Chu (2000). As regards Claims 10 and 18, Ozkan discloses the system and method of Claims 1 and 13 as well as that the receiving unit comprises; a PID checker (fig. 1.22) for checking the PID of the transport packet received from the headend unit and determining whether the PID is in a range of PIDs predefined by the system, to discriminate a transport packet including service information from a transport packet not including service information (col. 5, lines 47-53); a table constructor (data such as MGT, CIT, and ETT is arranged in the

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form of tables, col. 5, lines 35-37) for receiving the transport packet including service information from the PID checker, extracting the service information from the transport packet, and constructing various tables (fig. 1.60 and col. 5, lines 53-61); but fails to disclose a link layer packet constructor for receiving the transport packet not including service information from the PID checker and constructing a protocol data unit (PDU) and a service data unit (SDU). Chu discloses a link layer packet constructor for receiving the transport packet (such as MPEG packets) not including service information from the PID checker and constructing a protocol data unit (PDU) and a service data unit (SDU) (fig. 7, page 23 and page 21, lines 27-33).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine the link layer packet constructor of Chu to the digital receiving unit of Ozkan to make Ozkan's system operable in a digital cable system based on an SCTE industry standard.

As regards Claims 11 and 19, Ozkan discloses that the PID checker (fig. 1.22) designates the PID of the transport packet containing service information excepting an AEIT and an AETT as a first specified number (such as a PID for a CIT), and the PID of the transport packet containing service information including the AEIT or AETT as a second specified number (such as a PID for the ETT or EIT) within a range of PIDs defined by the headend unit and the receiving unit excepting the first specified number, the PID checker checking the PID of the transport packet received from the headend unit and determining that the transport packet includes service information when the PID is identical to the first specified number, determining that the transport packet

includes the AEIT or AETT when the PID is identical to the second specified number, or determining that the transport packet does not include service information when the PID is identical to neither of the first specified number nor the second specified number (col. 5, lines 47-53).

As regards Claim 12, Ozkan discloses that the table constructor extracts service information messages from a private section of the transport packet received from the PID checker and constructs various tables using a table identifier of the extracted service information messages (col. 6, lines 6-11).

As regards Claim 20, Chu further discloses that the link layer processing step comprises; receiving the transport packet not including service information; constructing a protocol data unit; and combining more than one protocol data unit to construct a service data unit (fig. 7, page 23, because downstream packet length is limited by the MPEG standard, assembly of an SDU may take more than one packet, page 27, lines 14-16).

Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan (US 6,031,577) in view of Mimura (US 6,577,031) and in further view of Bradshaw (US 6,650,636). While Ozkan and Mimura jointly disclose the system of Claim 3 and Mimura further discloses the service information generator and a that flags can signal different service information (col. 9, lines 58-60), they both fail to disclose adding an indicator bit to a header of the transport packet so as to discriminate between IP datagrams (packets). Bradshaw discloses adding an indicator bit (of flag bit) to a

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header of the transport packet so as to discriminate between IP datagrams (col. 6, lines 7-35).

At the time of invention it would have been obvious to a person of ordinary skill in the art to header indicator bits of Bradshaw with the service information flags used in the digital cable system of Ozkan and Mimura because indicator bits contained in the header are an easier way for networking hardware to process packets.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Djupsjobacka (US 2003/0022643) discloses a digital video broadcasting system that allows for the transmission of supplementary data allow with the audio and video streams. Gotwald (US 5,987,518) discloses a system that allows IP communication over a digital cable system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R. O'Steen whose telephone number is 571-272-7931. The examiner can normally be reached on 8:30 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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